NEW ORLEANS MEDICAL AND SURGICAL JOURNAL

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EDITORIAL

TYPHOID FEVER IN NEW ORLEANS.

A survey of the mortality from typhoid fever in the large cities of the union during 1920, published in a recent number of the *Journal of the A. M. A.*, furnishes very interesting facts from which practical deductions easily may be drawn.

New Orleans makes a favorable showing, with 7.4 deaths per 100,000 of population per annum, in so far as it is a decline from 13.7 for the previous year and from 35.6, its average for the five years 1906 to 1910. On the other hand, a further study of the survey shows that New Orleans is the fifty-third in standing of the sixty-eight cities of more than 100,000 population, those listed by the *Journal*, which means that our standing is well below the middle. Our civic and our professional pride both should stimulate us individually as well as officially to renewed effort towards the betterment of our typhoid record.

When we see further that six of the cities listed are credited

with less than two deaths per 100,000 of population for the year 1920, we receive a clear impression of the room for improvement which exists.

Of the diseases considered preventable, typhoid is one of the best understood: Secure pure water and unpolluted milk, stop the breeding of flies or destroy them, locate and eliminate carriers—and the typhoid problem is solved. This does not mean that typhoid fever would be eradicated from a city, as there still would be cases and fatalities among the non-residents and from suburban sources of contamination, but the total mortality from these sources would be small and would gradually decrease as sanitary measures became more generally and more efficiently applied.

Obviously all these things are more easily said than done. To attain them will be required hard work, intelligent effort and monetary outlay on the part of civic and sanitary officials. The individual physician can do his part by carefully diagnosing and promptly reporting his cases, in order that their source may be traced. He can help to educate the citizens up to the point of recognizing the importance of the necessary preventive measures and he can co-operate with the health authorities in their efforts to carry out collective prophylaxis.

CHARITY HOSPITAL PROGRESS.

Very noticeable progress in the affairs of the Charity Hospital is seen from every angle and it is with pleasure that we make comment upon the advance. We do not place the credit for this change to any individual but we give praise to the many who have been for years laboring to accomplish this growth. Many have worked to obtain this result. It appears that the disgruntled provoked this constructive work, but it is with difficulty that we could cite a few who were satisfied with conditions existing in the hospital.

The commendation for this progress belongs to the Board, the good Sisters, the Superintendent and especially the Staff, who have been organized, and have suggested, assisted and carried their share of the advance. The most noticeable accomplishment is that of the meetings of the Staff. These are harmonious, deliberate and free from factional feelings.

Again it is noticeable that the Board is not holding itself aloof but is lending encouragement to these efforts, realizing the great

benefit which must accrue to the institution. We cherish the hope, and we see no reason why this wish should not be realized, that this spirit of harmony will prevail and that the old Charity will continue one of the country's foremost hospitals. The JOURNAL will not sit idly by but will lend assistance to this movement forward and its pages will be ever open to assist the cause.

THE AMERICAN JOURNAL OF TROPICAL MEDICINE.

The first number of the above named Journal, for January, 1921, has just been issued. It is to be published bimonthly as the official organ of the American Society of Tropical Medicine. We welcome its entry into the ranks and are interested in its career not only because of our general concern in medical journalism but on account of the special attention we have given the subject of tropical medicine in this publication and in the *American Journal of Tropical Diseases* which was for several years the official organ of the Society of Tropical Medicine and became incorporated in this JOURNAL when the separate existence of the *Tropical Journal* became financially impossible.

The initial number contains the reports of the officers of the Tropical Society for 1919-1920 and several very interesting articles, two of which have already been published—one in the *Journal of the A. M. A.*, to which credit is given for same, and one in this JOURNAL, for which acknowledgment is not made, no doubt by oversight.

The new journal is published by the Williams and Wilkins Company, of Baltimore, and appears in large clear type on good paper, making a very favorable first impression.

MEDICAL CORPS OF THE NAVY.

The Surgeon General of the United States Navy informs us that there exist at present a large number of vacancies in its Medical Corps and that examinations will be held at frequent intervals in several of the coast cities of this country, the nearest to this point being at Charleston, S. C. and North Chicago, Illinois.

For the time being appointments will be made directly into the Medical Corps instead of by preliminary enrollment in the Naval Reserve Force as heretofore.

The physical requirements will remain the same but the professional examination will be on general surgery, general medicine, general hygiene and sanitation; also a practical examination will be included.

Service in the Navy should be attractive to young men as the opportunities for study and research as well as for travel are large, and the pay, to which additions have recently been authorized, is not unattractive.

Prospective candidates should write to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., for further information.

STATE SOCIETY MEETING.

As this number is being printed the forty-second annual meeting of the Louisiana State Medical Society is going on. It is possible, however, to judge that it will prove an unqualified success. The program is being carried out on time, the quality of the papers so far are up to the standard, while the entertainments have seemed to furnish enjoyment to our visitors. The chief feature, the stag frolic of the first night, included a well prepared dinner, a musical number and a vaudeville entertainment which was found amusing without shocking any one's sense of proprieties.

The following is the list of the principal officers nominated for next year: President, J. E. Knighton, of Shreveport; first vice-president, Wm. H. Harris, of New Orleans; second vice-president, Bruce Wallace, Alexandria; third vice-president, T. A. Roy, Mansura. The secretary-treasurer holds over and the society will continue to profit by his efficient service during the coming year.

Alexandria was chosen as the meeting place for 1922.

The retiring officers and the committee of arrangements are to be warmly commended for their efforts and the success with which they were crowned.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

THE SPECIFIC AND NON-SPECIFIC IMMUNITIES.

By G. H. SHERMAN, M. D., Detroit, Mich.

Practical immunology has demonstrated that immunizing responses resulting from vaccine injections assume both a specific and nonspecific character. The specific immunizing action of vaccines has received by far the greater amount of attention because it appealed most forcibly to the general concepts of immunity to the various infecting organisms. And, reasoning from this premise it naturally followed that autogenous vaccines, being prepared from the identical organisms that are responsible for the infections were regarded as serving the best purpose. This concept of the absolute specific action of vaccines became so thoroughly fixed that autogenous vaccines were thought to be the only ones that should be employed and if a patient made no satisfactory improvement under autogenous vaccines, vaccine treatment was abandoned as not being available in that case.

That this specific immunizing action of vaccines is not the only method employed in developing immunizing responses was gradually ascertained by clinical experience. In this regard Wright (*The Lancet*, March 29, 1919) says:

"I confess to having shared the conviction that immunization is always strictly specific. Twenty years ago, when it was alleged, before the Indian Plague Commission, that antiplague inoculation had cured eczema, gonorrhea, and other miscellaneous infection, I thought the matter undeserving of examination. I took the same view when it was reported in connection with antityphoid inoculation that it rendered the patients much less susceptible to malaria. Again, seven years ago, when applying pneumococcus inoculations as a preventive against pneumonia in the Transvaal mines, I nourished exactly the same prejudices. But here the statistical results which were obtained in the Premier Mine demonstrated that the pneumococcus inoculations had, in addition to bringing down the mortality from pneumonia by 85 per cent, reduced also the mor-

tality from "other diseases" by 50 per cent. From that on we had to take up into our categories the fact that inoculation produces in addition to "direct" also "collateral" immunization. This once recognized, presumptive evidence of collateral immunization began gradually to filter into our minds. Among, I suppose, many thousands of patients treated by vaccine therapy in private and in hospital, it happened every now and then that a patient was treated with a vaccine which did not correspond with his infection, and that that patient indubitably benefited. Again, it was not an uncommon experience for the subjects of a very chronic infection (such as pyorrhoea) who were treated first by a stock vaccine, and afterwards with an auto-vaccine, to assert that they derived more benefit from, and to ask to be put back upon treatment by, the stock vaccine.

"From such cases hints are conveyed to us that there may exist a useful sphere of application for collateral immunization; and that such sphere may, perhaps be found in those cases where the infection is of very long standing, and where the patient has become very sensitive to, and has probably come very near the end of his tether in the matter of immunizing response to the particular species or strain of microbe with which he is infected. It will, with regard to such patients, be remembered that they constitute the third of those three classes of cases to which I referred at the outset of this lecture as very intractable to vaccine therapy.

"We are, however, here considering primarily the question of principle; and in connection with this what is of fundamental importance is: that we should discard the confident dogmatic belief that immunization must be strictly specific, and that we should in every case of failure endeavor to make our immunization more and more strictly specific. We should instead proceed upon the principle that the best vaccine to employ will always be the vaccine which gives on trial the best immunizing response against the microbe we propose to combat."

A careful analysis of prevailing conditions after recovery from infectious diseases would indicate that this nonspecific collateral immunity is a prevailing factor in the process of specific immunization. We find that persons who have recovered and by recovered we mean that they have been completely restored to health from typhoid fever, measles, scarlet fever or other acute infections, are not as susceptible to infections for some considerable length of

time as the average individual. As a rule they enjoy exceptional good health and frequently the resistance to infection that has developed can best be explained by nonspecific immunizing responses. And this is an important natural provision. If this were not the case infections would be liable to follow one after another to an enormous disadvantage to those recovering from infectious diseases.

Prophylactic and therapeutic immunization by means of bacterial vaccines includes all the immunizing principles that obtain in acquired immunization during the course of an infection in an intensified form. And to obtain the best results the vaccine must contain organisms which will take due advantage of both the specific and nonspecific properities of the immunizing function. These proprieties of a bacterial vaccine can only be determined by extensive clinical observation over a long period of time and the results of such observations have led to a general conviction among extensive vaccine users that polyvalent mixed vaccines serve the best purpose. By this means the immunizing faculty is aroused from various angles and by repeating the inoculations these multiple immunizing influences are prolonged over a long period of time. This is where forced immunization by means of vaccine inoculations offers a distinct advantage over immunities that are produced by overcoming an infection without the aid of vaccines. Often the immunity following an infection is just enough to overcome infection; leaving the patient in a condition where the slight immunity that has been established will soon wear off when the relapse of the same infection is liable to follow. By continuing vaccine inoculations after apparent immunity has been established the immunity becomes intensified and more lasting. This is well illustrated in cases of erysipelas. It is well known an attack of erysipelas predisposes the individual to future attacks. If, however, vaccines are employed in the treatment of erysipelas and several more doses given after the infection has subsided the erysipelas seldom recurs. Pneumonia is another disease in which an attack makes the subject more susceptible to contracting the disease again. This tendency is avoided by treating pneumonia cases with vaccines and continuing the inoculations until recovery is complete.

The thought has been advanced that after immunizing responses have become well established from the use of vaccines during an infection the antigenic influence of the infecting oganisms will

prolong the immunizing activity until the infection is overcome. Clinical experience shows that this is not true. In many instances it is found when an infection is brought well under control after giving a few doses of vaccine and if the vaccine treatment is then discontinued the infection will flare up and again be brought under control after further vaccine injections. This would certainly show that the antigenic influences of the live organisms which are responsible for the infection are not as dependable and effective as the antigenic properties possessed by the killed organisms in the injected vaccine. This is not sufficiently appreciated by those who have not had extensive experience with the use of vaccines. If after favorable progress from a few doses of vaccine the patient gets worse again, too often further vaccine treatment is not resorted to because of insufficient confidence in the efficiency of vaccines, whereas the fault is not with the vaccine at all, but with an inadequate use of it. Vaccines, like other therapeutic agents, are only useful when properly applied and when applied so both the specific and nonspecific immunizing influences are taken advantage of most satisfactory results are obtained.

THE PATULOUS APPENDIX—A TOXIC FOCUS.*

By DR. W. A. LOVE.

The caption under which this paper is presented may appear to you to be somewhat ambiguous. As a title it would, perhaps, have been better to have selected one in the form of the interrogation: *When is the patulous appendix a toxic focus?* This heading would have served better for we are given to understand, by the anatomists, that the normal appendix is patulous and it is not my intent to deal with what may be considered as a normal appendix. To explain the terms of the caption as I shall employ them, I wish to state that I consider a *focus* as a source of infection and that I employ the term *toxic* in contradistinction to *septic* or pus-forming. Therefore, we are to discuss a concept of the patulous appendix under the conditions which make it a toxic and non-pyogenic source of systemic infection.

Infections within the human body are blood-borne poisonings and are typically divided into three great classes, viz: those due to pyogenic or septic toxins; those due to toxins of infectious

* Read before the Orleans Parish Medical Society, March 14, 1921.

diseases, and those due to reabsorption into the systemic circulation of the end products of decomposition or putrefaction of endogenous or exogenous material. It is with poisonings of the last class, exogenous in origin and due to putrefaction and decomposition of ingested matter, that we will deal in our discussion of the effect upon the human organism of toxins arising through the pathological presence of a certain type of the abnormal, patulous appendix.

The appendix is described as a small tube of doubtful physiological function arising from and emptying into the cecum and terminating as a blind pouch of varying degree of length. Anatomically it is fairly identical with the general structure of the large gut, possesses the same number of coats, the same peritoneal covering and mucous membrane lining and the same general glandular arrangement submucously. The radio-physiologists tell us that peristalsis takes place in the normal appendix and that the peristaltic waves are exerted from tip to lumen in minute bead-like waves and that the appendiceal contents are expressed into the cecum thereby. As part of this appendiceal content is also expressed into the cecum the appendiceal secretion which has some undiscovered function in the cecal digestive process. Therefore, we logically deduce that the organ was ordained to be patulous and to follow its normal function of emptying its contents into the cecum during the cecal stage of bowel digestion. We must consider, therefore, that during the cecal stage of digestion the appendix fills and empties with the filling and emptying of the cecum. The appendix, being a blind pouch, is probably filled by the force of the antiperistaltic waves of the cecum as they exert back pressure toward the head of the cecum and the ileo-cecal valve and that it empties due to the action of the peristaltic waves within the appendix which travel as before stated from the tip toward the lumen. Consequently, under conditions of health the contents of the cecum and of the appendix may be considered as practically one and the same material and we logically assume that, as the cecum empties, the appendix empties coincidently and simultaneously. It is during this stage of the digestion and elimination process that absorption of nutrient matter is completed and the cecal contents become a part of the putrefying mass of fecal matter that eventually occupies the last half of the transverse colon, the descending colon and the sigmoid-rectal area.

Inflammation produces certain physiological changes in the action of the appendix. This inflammation is not due to infection arising within the lumen of the appendix, except in the case of the lodgment therein of foreign bodies with consequent laceration of the mucosa, but to exudative changes in the walls. Stengel states that when an appendicitis subsides and the lumen of the organ is restored, interstitial changes take place within the walls in direct proportion to the severity of the inflammation. Hence, we have after each attack of appendiceal inflammation some thickening of the walls of the organ. In direct ratio to this thickening or interstitial hyperplasia, we have a modification or lessening of the physiological function of peristalsis in the appendix with delayed emptying and stasis produced. An attack of appendicitis, however mild, is accepted axiomatically as predisposing to subsequent attacks each of which tends to increase the interstitial hypertrophy of the organ until it assumes a true state of chronic interstitial appendicitis. The same pathology that is produced, as is manifest in the other abdominal organs which are subjected to prolonged or frequent inflammations, is shown in the appendix which is subjected to recurrent attacks of mild inflammation and just as we have interstitial thickening of the liver and kidney with subsequent shrinking, we have the chronic interstitial appendicitis produced with consequent loss of peristaltic motility. Occasionally we have lumen obliteration incidental to the interstitial change, but in discussing the patulous appendix we are not concerned with this type. Moreover, as we are not discussing the etiology of appendicitis, I will not attempt to decide as to whether the infection causing acute attacks of appendiceal inflammation is blood-borne to the organ or the result of extended infection from the cecum. To summarize the pathology of the organ under conditions which make it a possible toxic focus we find it in a state of chronic interstitial appendicitis, patulous but devoid of sufficient peristaltic power to empty its lumen coincidently and simultaneously with the emptying of the cecum. The patulous appendix in which stasis exists is, therefore, one into which the cecal contents find ready entrance but tardy exit. Radiographically checked, this tardiness may be of duration from a few hours to indefinite periods. I will ask Dr. Henriques to elaborate upon this point in the discussion as he has made some interesting observations in this regard.

The logical query now follows as to what conditions arise bacteri-

ologically and chemically in the retained material present in the appendix under the described conditions of stasis after the cecum has emptied. In the normal schedule of elimination from the large intestine, the waste material from the ingesta and the unabsorbed end products of digestion are eliminated from the body before putrefaction and decomposition have been sufficiently exerted upon these substances to produce any deleterious quantity of putrefactive toxin for absorption into the inferior mesenteric circulation. Stasis in the large bowel results in reabsorption of excessive amounts of putrefactive toxins in direct ratio to the duration of stasis and the quantity of putrefactive bacteria and enzymes present in the colon. I will not dwell at length upon the variety of colonic flora and enzymes, as this can be obtained from any standard text, but will state that there is no occasion to believe that stasis in the appendix will cause any departure from the usual ratio of decomposition and putrefaction which applies to stasis in other parts of the large gut. Hence, if we consider stasis in the patulous appendix we must visualize a state of affairs in which a portion of the content of the large bowel is delayed and exposed to the action of the putrefactive bacteria and enzymes of the colon at most favorable incubating conditions of moisture, culture media and body temperature. Studies of the bacterial content of the chronic appendix show that, according to Deaver, the colon bacillus predominated in 89% of cases examined by him and Rosenow cites better than 80% colon bacillus as his experience. These statistics include the obliterative types and I am inclined to believe that the colon bacillus and attending putrefactive bacteria and enzymes can be demonstrated in all patulous cases but unfortunately I cannot confirm this belief with statistics from the literature.

The patulous, stagnant appendix is in effect a culture tube presenting itself under incubation and with open mouth for the deliverance of its virulent strains of bacteria at the very first portion of the eliminating sewer of the body to pollute the sewer contents as they arrive from the small intestine via the ileo-cecal valve. At the time that the small intestine empties, active stomach-like peristalsis is set up in the cecum which favors the admixture with the cecal contents of the bacteria elaborated within the stagnant appendix.

How does our patulous, stagnant, chronic interstitial appendix act as a focus of infection? In two ways; the first a possibility

and the second, to my mind, an actuality. Admitting that we are dealing with a pouch in which stasis exists and in which putrefactive toxins are being elaborated, we will realize that there are two routes by which these toxins may reach the portal circulation; 1. Absorption direct via the venous capillaries of the appendix and 2. Secondary absorption via the venous capillaries submucously situated in the cecum and colon. I am disinclined to believe that absorption via the appendiceal capillaries is very great because the material is not under pressure and the interstitial change producing the character of appendix under consideration is a direct protection against the likelihood of such direct absorption. Clinical observations have forced me to realize the importance of the secondary absorption via the large bowel and the role played by the stagnant appendix as a reinfecting agent in cases of persistent excessive intestinal toxemia of the putrefactive type.

It might be well at this time to interpolate a concept of the etiology of chronic excessive intestinal toxemia of the putrefactive type which I trust will be acceptable to my hearers. To my way of thinking, nature has established a schedule of elimination which eliminates likelihood of excess of toxic absorption from the colon as before detailed. If this schedule is upset and there is a delay in elimination or if excessive quantities of putrefactive bacteria are produced in the large bowel or its appendages the result will be an excess of toxic reabsorption into the portal circulation of these toxins produced by the action upon the undigested albuminoid residue and the unabsorbed amino acid end products of proteid digestion of the colon bacillus and its allied putrefactive bacteria and enzymes. Until these residue substances are acted upon by putrefactive bacteria, they are of themselves non-toxic but the putrefactive amines produced by decomposition are real tissue poisons. Upon being reabsorbed, these toxic amines are carried to the liver via the portal circulation and it is the function of the liver to neutralize them but this function of the liver is limited and any great excess over normal results in a portion finding egress into the general circulation where they act as toxic systemic poisons. These poisons are basic in character and have a pathological effect upon all tissues with which they come in contact causing manifestations of irritation and eventually causing reactionary interstitial changes in the tissues. These interstitial changes are particularly manifest in the organs called upon to carry and eliminate

the poisons, viz: the blood vessels, heart, kidneys and liver. Numbers of the toxic amines have selective actions in producing special systemic symptoms as has been clearly proven by Barger and Dale in experimental injection of isolated toxic amines for the production of urticaria, spasmodic asthma, elevations and reductions of blood pressure, etc.

My attention was first called to the possibilities of the patulous appendix in a condition of stasis as a reinfecting agency in chronic intestinal toxemia by my inability to clear up certain cases of this character by the routine measures which proved successful in other cases. These cases were of the putrefactive type as evidenced by excessive indicanuria and not of the fermentative type. Just at the time when I was congratulating myself that I had produced a desirable condition in the colon and that the normal schedule between putrefaction and elimination had been reestablished I found that the admission of the smallest amounts of albuminoid proteid food into the diet was productive of a return of the symptoms and an excess production of indican in the urine. In some cases I found that I could not produce a healthy colonic state at all.

X-ray examination of a number of the above classes of cases brought to me forcibly the coincidence between the occurrence of the patulous appendix with stasis and my inability to clear up the intestinal toxemia satisfactorily.

The signs and symptoms of the patulous appendix as a toxic focus are therefore, I believe, those of intestinal toxemia which does not yield to routine and accepted measures usually employed in treatment and it is as logical to eliminate this possible focus in making our routine examination in search of hidden foci of infection as it is to examine the tooth sockets, sinuses, antrums, prostate, etc. It is generally understood and accepted at this time that intestinal toxemia may produce such symptoms as fatigue, anorexia, urticaria, spasmodic asthma, migraine headache, neuralgia, peripheral neuritis, myocarditis, peri-articular inflammations, etc., and when we find that the intestinal toxemia does not yield to the accepted lines of treatment we owe it to our patient to complete the gastro-intestinal examination by X-ray examination and bearing in mind, as these X-rays are made, the possibility of the patulous appendix as a toxic focus.

The following are a few of the cases of type described that I have had under observation:

Case 1. C. H. A., white, male, age 42 years. Applied complaining of severe fatigue and shortness of breath on exertion. Routine physical examination negative with exception of Systolic B. P. of 98. No heart murmurs or appreciable loss of weight. Some edema of ankles. Urine examination negative with exception of high S. G. and heavy indican reaction. Diagnosis made of myocarditis without valvular insufficiency.

Careful search failed to reveal any foci of infection except the large intestine. Routine treatment for intestinal toxemia was carried out during 6 weeks of rest treatment for heart condition. Test meal of tomato peelings passed by subject 8 days after ingestion. Routine gastro-intestinal X-ray examination showed cecal stasis, appendiceal stasis. Bismuth remained in appendix 9 days after meal was given. It may have remained longer but no examination made after 9 days. In meantime subject had received enema every 48 hours and 2 purges with salines. Subject refused operation and continued in poor health. Went north for health and was operated upon one year later. Toxemia cleared up and has regained normal health since removal of appendix.

Case 2. G. A. H., white male, age 24, applied, complaining of loss of 20 pounds in weight and inability to sleep on account of severe pains in muscles of lower extremities. Wassermann blood cultures negative. No leucocytosis. Urine showed excessive persistent indicanuria under most careful treatment. Examination of all possible foci of infection failed to show any except large intestine. Case remained under treatment for intestinal toxemia for 2 months and became worse rather than improving. Diagnosis made of peripheral neuritis diffuse over lower limbs and lumbar area of back. Patient finally resorted to crutches.

Dr. Henriques made routine X-ray of gastro-intestinal tract at this time and reported 48-hour appendiceal stasis. Suggested operation to patient in hope of relieving toxemia. Dr. Phillips removed appendix and can bear me out that 10 days later patient walked without his crutches and was entirely free from pain. He gained 35 pounds in the subsequent 2 months.

Cases 3 and 4. K. B. and I. K., both white females of 20 to 25 years and for sake of brevity I will describe together as they were clinically fairly identical.

Both applied complaining of diffuse muscle pains, loss of appetite and hyperacidity of over 1 year of duration. Both had lost about 25 pounds and complained of insomnia. Normal menstrual history and both were unmarried. Heart and lungs in both cases were normal as was blood examination for malaria, syphilis, and leucocytosis. Blood in both cases showed a low neutrophile count and high mono-nuclear leucocyte content. Urine in both cases showed an indicanuria that persisted after 4 to 5 months of routine treatment. Dr. Henriques reported 48 to 72 hours of appendiceal stasis. Removal of the appendix relieved the intestinal toxemia and cases rapidly regained normal weight with entire cessation of symptoms.

Case 5. F. C., white male, age 24. Applied for relief of spasmodic attacks of asthma 4 years ago and has been under observation since. All possible foci of infection eliminated and all possible reflex disturbances studied with conclusion that attacks are caused by exacerbations of chronic intestinal toxemia upon the least indulgence in high proteid diet. While diet is watched, subject is a border-line case, asth-

matic but free from paroxysms except when he overindulges in proteid albuminoids. X-ray shows patulous appendix with over 24 hour stasis. After 4 years of study with this case, I am satisfied that if the appendix is removed we can relieve the intestinal toxemia and the consequent toxic asthma.

These cases are instanced as types and in presenting them I am not trying to "Ride a Hobby" but to state that, from an experience of several years in observing intestinal toxemias, I am of the opinion that they were relieved or are relievable by the removal of a patulous stagnant appendix which acted as a reinfecting agency and stood in the way of proper treatment of the existing and persistent chronic excessive intestinal putrefaction.

DISCUSSION.

Dr. A. Jacoby: It was a surprise to me to know that a patulous appendix was the cause of any infection. My impression has been that only those appendices which are blocked either by cicatrix or by fecal stone will cause any disturbance. The appendix is blamed for many diseases and its removal seems to have proven a cure in the hands of many surgeons. Personally, I am very skeptical of these cures and I do not think that its removal is a "cure-all" for the many diseases that it is supposed to be accountable for.

CASE REPORT.*

By DR. F. W. PARHAM.

The case I bring before you tonight is one of peculiar interest for several reasons.

He entered my service in December, 1920, presenting the signs of a profound anemia. The blood examination afforded a strong suspicion of pernicious anemia. I asked Dr. Weis to see the case on this account. We went into the history very carefully eliciting the following facts:

For the past year he has been having occasional hemorrhages from the bowel some of them quite profuse. The last about a week ago was quite copious, but there has been none since. The origin of these hemorrhages we have not been able definitely to make out, but a history of indigestion and the complaint of pain some time after eating and the absence of blood by vomit has made us strongly suspect an ulcer of the duodenum.

The indications for treatment were two: 1. To guard against further bleeding. 2. To build up the blood.

These indications were met on January 10 by a transfusion of

*Read before the Orleans Parish Medical Society, February 28, 1921.

350 cc of blood from a donor in the same group 4, as determined by tests by the pathological department of the hospital. 500 cc were drawn from the donor, but not all was given because of a severe anaphylaxis which came on after somewhat over 300 cc had been given. This steadily became more pronounced so that we discontinued after about 350 cc were in. The administration of ether by inhalation gradually overcame the anaphylaxis and he was sent back to bed much improved. With strict rest in bed and the administration of arsenic and Blaud's pills he has steadily improved as you can observe. His blood count substantiates this observation. The reds gradually increased in number until today (the day of this meeting) they have reached over 4,000,000. The hemoglobin which at first was 35 is today 707. There has been no more bleeding. There are other interesting features but the time allotted forbids.

CASE REPORT.*

By DR. W. T. PATTON.

I am presenting this case for two reasons, first because it is a very interesting condition, second because it illustrates what awful conditions neglect of discharging ears may cause.

This little girl, now four years old, was brought to the hospital sixteen months ago, suffering from double discharging ears and double acute mastoiditis. The father refused to leave the child in the hospital.

The child was again brought to the hospital about two months ago, with sinus entering both mastoids, both ears discharging. History of case said both mastoids had been incised after child left hospital and never healed. A double simple mastoid was performed about six weeks ago; mastoids were found to be badly diseased. It was thought best not to do a radical operation at this time.

The child did very well but wound would not close. It was noticed at this time that child only talked in a peculiar jabber of its own. On testing it was found that she was totally deaf and both labyrinths were dead to coloric test. A radical mastoid was performed upon right side two weeks ago and now well. A radical will be done on left side in few days.

*Read before the Orleans Parish Medical Society, February 28, 1921.

The only thing we can do now, will be to put child in charge of a good teacher for lip reading, for she will be totally deaf for life.

REPORT OF TWO CASES OF LEPROSY.

By J. M. PERRET, M. D.
(From the Dr. J. T. Nix Clinic, New Orleans.)

Leprosy has been recognized in Louisiana since 1778. The disease is known to be endemic in our state. Osler says that Dyer in 1898 estimated the number of lepers in Louisiana as being between 300 and 500. There are probably more cases at the present time.

One afternoon in 1917, I visited a dermatological clinic in New Orleans and saw three cases of leprosy. Both cases to be reported were Louisianians; neither one had left the United States, indeed one had never been outside of Louisiana.

Many cases are undoubtedly going about at the present time without being diagnosed. Symptoms had lasted for five years in one of the cases, and for seven years in the other case, before they came to the clinic. Both had repeatedly sought medical advice and had come under the care of skilled observers, and for some reason that I fail to understand, their condition had escaped recognition.

It is interesting to speculate on how many cases these patients have infected during the long years that their disease was unrecognized. Their first complaint was a "cold in the head" and as we easily found the bacillus lepræ in their nasal secretions, we can well imagine what a danger they have been to the rest of the community.

The Wassermann reaction is strongly positive in leprosy. This is not as yet common knowledge and this seems to have been a stumbling block in the diagnosis of their cases. The positive Wassermann reaction was interpreted as meaning syphilis and the patient had been informed that they had "bad blood." A brief history of the cases follow:

Case No. 1. E. D., a white male, 23 years, a native of Louisiana, was seen at the clinic on March 24, 1920. He complained of the condition of his skin. For the past five years he has suffered from persistent head colds; his nose is always stopped up. One year ago he noticed that the sensation of his hands was getting bad and that he would frequently drop objects. At about the same time that the skin sensation of his hands was becoming affected, small lumps gradually

came out on his face. Three weeks ago a painless sore appeared on his left arm. His appetite is poor. Digestion good. Bowels are regular.

Past history. The patient has never travelled outside of the United States. When a boy he worked on a farm, later in an oil refinery up to three years ago, at which time he had to abandon his work on account of his present illness. For the past three years he has been helping his parents in their grocery store. The patient had always enjoyed good health up to his present illness.

Family history. Father and mother are living and well. They are of French descent. There are no known cases of tuberculosis, cancer or skin diseases in the family.

Physical examination. The face has numerous small anesthetic nodules and has the leonine expression. The lobules of the ears are enlarged. The nose is stopped up and admits but little air, on account of a rhinitis. There are small white nodules on the soft palate. The tongue is negative. There is advanced pyorrhoea alveolaris. The eyes are negative. The pupils are equal and react to light and accommodation. The knee jerks are negative.

Chest. Heart is negative. The lungs give evidence of infiltration.

Abdominal examination is negative.

Extremities. The skin of the palms of the hands is glossy. On both forearms are numerous small anesthetic nodules. On the left arm is a small painless ulcer. The skin of the plantar surface of the left foot is scaly.

Laboratory examination. Urine is negative for albumin, sugar and indican. Total leucocytic count 6500 per c. m. Differential count: Small lymphocytes 25; Large lymphocytes 5; Neutrophiles 70. Wassermann reaction: 4 +.

Smears made from the nasal secretion showed the presence of the bacilli of leprosy.

Case No. 2. J. H., white male, 21 years, a native of Louisiana, was seen at the clinic on January 4, 1921. He complained of his skin condition. Seven years ago he began to suffer from persistent head colds. Six years ago he underwent a nasal operation but was not relieved. Seven years ago he struck his right foot and developed an ulcer which has not healed to date. Three years ago it was noticed that his skin was getting rough. His appetite and digestion are good and his bowels are regular.

Past history. The patient has never left Louisiana. As the disease dates back to his boyhood the patient has never had any occupation. During childhood he suffered from earache. Eight years ago he sprained his right ankle.

Family history. Father and mother are both living and well. As far as is known, there have been no cases of cancer, tuberculosis or leprosy in the family.

Physical examination. This revealed a truly horrible picture equaled perhaps only by a severe case of smallpox. The face was leonine. It was covered with nodules. The lower lip had been ulcerated away so that there was constant dribbling of saliva. The patient covered his mouth with his handkerchief to hide his awful deformity. There were numerous ulcers in the buccal mucous membrane. There was pyorrhoea alveolaris. Tongue negative.

The patient's voice was very hoarse and he could hardly be understood when he spoke. The ears were enlarged to almost twice their normal size. The nose was swollen and ulcerations were present on its mucous membrane and there was a good deal of secretion, causing an almost constant sniffle. The fingers were deformed and swollen. The patient cannot hold anything in his hands and he is not able to dress himself. He wears large gloves to hide his hands. His toes are also swollen and there are several small trophic ulcers under toes of right foot. He has to wear tennis shoes. The skin of the elbows is thickened. There are large salmon colored nodules scattered over the trunk. Some of the lesions are anesthetic but not all.

Laboratory examinations. Wassermann reaction 4 +. Smears made from the nasal secretions showed the bacilli of leprosy.

The accompanying photographs show the face and hands of case No. 2. Both cases were reported to the health authorities by Dr. Nix. The diagnosis was confirmed and they were sent to the Leper's Home at Carville, La.

The laboratory work and the photography were done by Dr. E. Escalante.

SUMMARY.

1. Leprosy is endemic in Louisiana.
2. These two cases were native Louisianians, who had never left the United States. One had never been outside of Louisiana.
3. If a patient has a strongly positive Wassermann reaction and has some lesions which look syphilitic and yet do not clear up with anti-syphilitic treatment, let us not overlook the possibility of leprosy being the cause of the trouble.

MERCUROSAL.

By JOHN L. MARCHAND, M. D., New Orleans, La.

With the, not original, statement that the question of the efficacy of our modern methods of combating the luetic infection is dependent largely upon the post-mortem findings of the next century of a certain percentage of "cures" among those subjects who had been treated by these methods, and not upon any test, serological or otherwise, now being employed for the purposes of diagnosis and treatment control, and that this important lack of evidence must qualify to a greater or lesser extent any report of the results of the recent exhibition especially of our modern remedial agents, I offer the following preliminary report of my experience with *Mercurosal.*

I have so far employed this remedy in the treatment of three cases of secondary lues, and of a case of very doubtful tertiary lues complicated (?) with Bright's Disease, not my own case, in all three instances in conjunction with arsphenamin, and in the treatment of one case of estivo-autumnal malaria who had a possible inherited lues, but with whom arsphenamin was not employed. These cases all gave *negative* Wassermann tests at the commencement of treatment, with the exception of one secondary luetic who gave a single plus. The other two secondary cases had previously given double plus Wassermann reactions, while the Bright's case had previously given one negative and one doubtfully positive Wassermann. The probable case of inherited lues had never previously had a Wassermann made.

And, further, at least two of these cases tolerated arsphenamin very badly, for one mercury in the form of inunction and by mouth affected the kidneys, and by one Potassium Iodide was not tolerated, even in extremely small doses. These points are of interest as they all tolerated *Mercurosal* very well.

A large experience while in the tropics with the treatment of lues without the, to me very doubtful, assistance of the Wassermann test, where the facilities for making this test did not exist, was the principal cause of a resort to another method of diagnosis and treatment control which I was then employing for the same purpose in connection with vaccine administration, and which I still employ, now in conjunction with the Wassermann in luetic cases, and with results that are very interesting, to say the very least, and which are not in favor of the Wassermann.

Suffice to say here, pending a coming communication dealing with this subject, that this test is dependent upon certain differential and numerical changes in the blood pictures taken before and after certain intravenous doses of antiluetic agents.

A passive experience with the intramuscular injection of the succinimide of mercury, and an active experience with the same mode of administration for other mercurial salts, with their extremely irritating local effects, to say the least; and, with insoluble salts, their slow absorption and, hence, prolonged effects after the eventuation of, especially, symptoms of renal complications, which latter are obviated not in the least by the oral administration of such remedies, had made me favorable to the intravenous method, given a salt of mercury less destructive to the blood than any that I had then tried.

Mercurosal in saline solution, and it readily dissolves, in as low a dilution as 0.3 gm. to 10 cc., produces much less coagulation of blood than does either neo-salvarsan or neo-arsphenamin in the same solution and dilution and, hence, allows the use of a small needle, with less likelihood of even the needle of smaller calibre clogging—in fact, I have never yet had this extremely annoying occurrence to happen with solutoins of *Mercurosal,* which I cannot say about the other solutions, and it certainly causes very little local irritation when any of the solution happens to be expelled without the vein.

These points are all favorable to *Mercurosal.* And, although the *cell poison* effects following the administration of *Mercurosal* are plainly marked in the blood pictures, these necessary effects of all such therapeutic agents, even of distilled water, are, to say the least, no greater than those following either of the arsenical salts above mentioned, and very much less than those following the intravenous exhibition of any quinine salt I have ever employed. These are also desideratums, and greatly in favor of this salt in comparison with like effects following a similar exhibition of what other mercurial salts I have tried.

In comparison with the oral administration of mercury, and its employment by inunction, it is my opinion, from the observation of only two cases where ill effects were noted on the kidney, that these untoward symptoms of an inefficient elimination are less constant and pass off much more quickly, after the discontinuance of the remedy, with *Mercurosal,* at least when given intravenously,

than with other mercurials given either by mouth, by inunction or by subcutaneous injection. If this should really prove to be the case it is a consideration of very great importance, and one, in my opinion, which speaks well not only of the intravenous method of administration, but of this salt as well, and in the latter case in more than one way.

As to the efficacy of this remedy in comparison with its safety, let the case reports speak.

Case 1. H. G. D., male, 19, had a lesion of penis nine months previously. Consulted his family physician who cauterized and dressed a few times; was also given three injections of "606," and pronounced cured. Consulted me for a malarial attack, when I got the foregoing history. Wassermann, single plus. Blood picture test strongly positive for lues. This case was treated for two weeks with neosalvarsan alone, in addition to his malaria treatment, during which time he was given six injections in doses varying from .3 gm. to .9 gm.

He then had two weeks of treatment with **Mercurosal**, .1 gm. every second day, seven injections in all.

During the second week he developed a slight diarrhea which may have been caused by the remedy or not. It passed off without any treatment. After a two weeks' rest from treatment the tests were repeated: Wassermann negative. Blood picture test positive. This case stopped treatment and went north, and it is only of interest in that it brought out some of the good points of **Mercurosal**, already mentioned; which at least acted as efficiently as any other mercurial would have done under the same conditions and for the short space of time it was employed, while it certainly caused the patient less inconvenience than would the subcutaneous, and myself less trouble than the intravenous injection of any other mercurial salt.

Case 2. O. L. F., male, 27, had a "soft chancre" two years previously for which he was given some sort of local treatment and some powders to take.

One year later, while in France with the A. E. F., a swollen testicle resulted in a Wassermann which was double plus. He was given three injections of **Salvarsan**, and ordered mercurial inunctions, under which treatment he greatly improved. Upon his discharge he was advised to continue active antiluetic treatment on his arrival home. This he neglected to do.

Six months later he consulted me for an ulcer of the glans penis, a secondary lesion, and requested "606" injections. Treponema positive by dark field. Wassermann negative. Blood picture positive for lues, very strongly so. First course of treatment, locally: Sterile dressings. Constitutionally: Two weeks of **Neosalvarsan**, 7 injections, .3 gm. to .9 gm. One month of **Mercurosal**: First two weeks, .1 gm. every second day; second two weeks, .15 gm. every second day.

With the larger dosage he developed diarrhea with abdominal pains, undoubtedly caused by the mercurial. The ulcer healed during the first week of treatment. He was then given two weeks rest from treatment.

Second course of treatment. Wassermann negative. Blood picture positive. Treatment for six weeks exactly as during first course. Diar-

rhea followed larger doses of Mercurosal. This was controlled by opium and the larger doses continued.

Third course of treatment. Wassermann negative. Blood picture positive. Eight weeks of practically a duplication of the above, first and second courses, but Neosalvarsan dosage slightly reduced. Patient could never take over .15 gm. Mercurosal without developing diarrhea and abdominal pains—controlled as above and larger doses continued. He was now given a month of rest from active treatment, and put on Potassium Iodide to tolerance.

Fourth course of treatment. Wassermann negative. Blood picture negative. Three injections, .6 gm. each, Neosalvarsan, at three day intervals. Six weeks of Mercurosal, .15 gm. at two day intervals. During the third course of treatment patient contracted scabies, which was marked by a slight eosinophilia and which yielded promptly to appropriate local treatment. During his fourth course he received treatment for a mild tertian malaria. He was put on Potassium Iodide and instructed to return in two months for further tests and possible treatment. He is about due.

Case 3. L. T., female, 30. Consulted me for "heart disease," but was found to have a malarial infection of the estivo-autumnal type. Stubborn progress under treatment for malaria occasioned a Wassermann. Wassermann negative. Blood picture doubtful. Treatment of quinine and arsenic for malarial infection was now supplemented with Mercurosal injections, .1 gm. every other day, until twelve doses were taken. Improved markedly both in appearance and general condition, but contrary to my advice, she stopped treatment. I do not think that any direct effects of the mercurial on the malaria was responsible for her improvement; but I am of the opinion that this subject had inherited lues, and that this was benefited by the Mercurosal, with a corresponding indirect effect upon the malaria through an increased resistance. Her blood pictures indicated this, very markedly so.

Case 4. P. S. G., male, 28. Had a "soft chancre" three years ago. Local treatment and pills were given. A suspicious iritis occasioned a Wassermann while with the A. E. F. and this showed positive. Was given a few injections of Salvarsan, with mercurial inunctions, and upon his discharge advised to follow this treatment under some competent physician until pronounced "cured." This advice he did not follow until, at the end of three or four months, the eye again became troublesome.

Wassermann negative. Blood picture very strongly positive. Eye condition pronounced one of luetic choroiditis by an ophthalmologist. A chronic posterior urethritis, Neisserian, was also diagnosed, as well as a benign tertian malaria. Had four courses of treatment.

This was undoubtedly a case of lues of nervous system complicated with malaria and a posterior urethral infection, if not of a deeper seat. His first real improvement was noted after his series of baths at Hot Springs. It is interesting from the fact that he simply could not tolerate Potassium Iodide without distressing symptoms of iodism, and could tolerate but small amounts of Neoarsphenamin without his renal function being very badly affected, while he could tolerate as high as .3 gm. doses of Mercuro-

sal of several doses before any ill effects were noticeable on the kidneys, but with no other effects of mercury whatever.

Case 5. J. W. H., 45. This case of Bright's disease before coming under my observation had shown two negative and one mildly positive Wassermann. He had been treated for lues, principally on account of an eye condition to the extent of three injections of .9 gm. each of Neosalvarsan, which made him "feel mean" for three days after each injection. His urine was loaded with cast of all kinds and showed considerable albumin.

Wassermann negative. Blood test doubtful.

Both the patient and his attending physician insisted upon injections of Neosalvarsan in large doses, and we finally compromised on small doses, but both refused to consider Mercurosal. I then made the further condition that he was to receive no other medication without my consent beforehand.

I treated this case for three months with twice weekly injections of Neosalvarsan, the dosage varying from .45 to .6 gm. with one of .75 gm. and one of .9 gm.

The effects from all of these injections, especially those upon the blood and the kidney function, were far from satisfactory, while those from the two large doses were to my way of thinking disastrous. To make matters worse, unknown to me, he was ordered and took for a few days rather large doses of Iodide of Soda with a mercurial salt. A hematuria promptly followed, while the casts always abundant were present in enormous numbers.

His white cell count had by this time dropped from its original 7000 average to 4000, and he now gave a + + Wassermann; while his blood picture test was still doubtful for lues. I now took matters entirely into my own hands and gave him three injections weekly of .1 gm. **Mercurosal.**

His first improvement was soon noted. His urine cleared of albumin, and blood cells and casts almost disappeared. He gained in weight and felt and looked much better. This treatment was continued for two months. He received in addition during this time three blood picture tests, with .3 gm. Neosalvarsan, each of which showed still doubtfully positive, and each followed by an increased number of casts and a return of red blood cells in the urine, while the leukopenia increased after each test.

The + + Wassermann I tried to assure him was due solely to the destructive action of the arsenical injections.

Before his departure for his home, a fourth blood picture test was made, .3 gm. Neosalvarsan, for I refused to give him more, and this was followed by an attack of high blood pressure. There was no opportunity given for a urine examination on this occasion.

Was this case luetic? I doubt it. The only benefit he received was from Mercurosal and small doses of mercurials, which are ancient remedies in such conditions as nephritis.

Conclusions.

The good points of Mercurosal have already been mentioned. The

case records speak for themselves—Mercurosal is evidently an active antiluetic agent, capable of less harm, at least when employed by the intravenous method, than some other mercurial salts employed orally, intramuscularly or by inunction.

It is apparently more rapidly excreted, at least when given intravenously, than are some other mercurial salts given by other methods, and possesses few of the drawbacks of other mercurial salts when given by the intravenous method.

I shall continue its use with care, and may be able to at least substantiate the good points, of my opinion, if not to add to these. It apparently supplies a need of antiluetic therapy.

PROCEEDINGS OF THE STAFF OF TOURO INFIRMARY

(HELD AT TOURO ON MARCH 18, 1921.)

DR. RANDOLPH LYONS: Case presented (X-ray picture shown). I will give you what I can from memory. (The patient is coming down). The case is that of a young man 18 years old. He never had any serious illness in his life; rather frequent colds. While a very young child, he had whooping cough, and chills and fever. One year ago, he had influenza. Otherwise, history negative. Denies venereal trouble.

The patient stated that two days before the present illness, he had lifted a good many logs. As a result of this, he felt very tired but nothing more. About two days later, while in bed, he had a sudden pain in the left chest in front from about the second to the fifth rib. The pain was rather severe and he felt somewhat short of breath. Pain did not last very long, finally disappeared and the patient went to sleep. He got up the next day apparently well, but during the morning while out walking, he was suddenly seized with an intense pain in the front part of the left chest. Pain was sharp and shooting in character, more severe on inspiration than on expiration, and was associated with marked shortness of breath and a sense of fullness in his left side. He had to go to bed but had no fever and gradually this pain became easier as days went by. The second attack began seven days ago. Up to the present time, the condition is a little over a week old. When I saw him three days ago, the pain had almost disappeared except when he breathed deeply. He was slightly short of breath and slightly cyanotic but able to walk. On physical examination, he showed

a marked bulging of the whole left side of his chest without any movement perceptible on deep breathing. There was no heart dullness nor apex beat visible on the left of the sternum. An impulse could be seen and felt about four inches from the median line on the right in the fourth interspace. On percussion, the whole left chest was hyperresonant. Right chest slightly hyperresonant. There was no heart dullness on the left but considerable on the right of the median line. On auscultation, no breath signs on the left; right side breath sounds exaggerated. Pulse pretty rapid and breathing moderately increased. Heart sounds audible to right of sternum in the fourth interspace.

I fluoroscoped him the first day alone. I am sorry I could not get the radiologists to be present. When I fluoroscoped him, his heart was considerably more dislocated to the right. (Picture hardly shows it.) The whole left lung seemed to be retracted near the vertebral column. No movement of the costo-diaphragmatic angle or diaphragm on the left could be seen. Heart could be seen pushed over to the right and beating somewhat to the right of the sternum. This picture was taken two days later and the patient was again fluoroscoped today. (Dr. Samuel will be glad to say a word about what we saw today). He has improved a great deal. You can still see the size of his heart. Visible impulse about three and one-half inches to right of mid-line; very little dullness to be made out on left side of sternum. The left side of the chest is more prominent than the right and does not move on breathing. (Auscultation will show most of the signs which I mentioned). What I diagnosed at first was "pneumothorax" of, so far, no known origin. Fluoroscopy bears this out. This condition is very unusual because almost every case of pneumothorax develops fluid of some kind and the majority (90%) are due to phthisis. The reason for the occurrence of fluid is that any perforation of the pleura allowing air to enter the pleural cavity is more than apt to carry infection (bacteria) with it. This causes an inflammation with exudation.

Perforation of the pleura may occur from the lung in tuberculosis from the rupture of a tuberculous cavity or pleural vomica. In non-tubercular disease from abscesses near the pleura, suppurating glands, gangrene, etc., all these conditions, however, carry infection with them and very soon after, the patient develops fluid

as well as air, depending upon the kind of infectious organisms present.

Pneumothorax has resulted from the rupture of a normal air sac after great muscular effort or such an affection as whooping cough. When rupture of an air vesicle occurs following severe exertion, it takes place during the time of great physical strain and not as in our case—two days later.

In the case here presented, there is no reason to suspect perforation of the pleura from disease of neighboring hollow organs (oesophagus, stomach, and colon) nor is there any question of a chest wound or needle puncture.

Hamman has recently stressed a benign, spontaneous, non-tubercular pneumo-thorax which occurs in apparently healthy persons without ascribable cause and resulting in no infection of the pleura and, therefore, no constitutional symptoms—healing rapidly and completely in a few weeks.

This type of Pneumothorax would correspond quite closely to our patient's case except for the fact that our patient presents a general, moderate adenopathy which is still to be explained and the X-ray shows a band of adhesions from the root of the lung to the periphery.

I might add here that the patient's laboratory findings were: Urine negative; Wassermann negative. Blood count: Whites, 4250; Reds, 4,666,000; S. M., 28; L. M., 7; N., 65; E., 0.

Dr. E. C. Samuel: Presents under the fluoroscope, absolute absence of lung markings down here (picture shown) but across here (indicated on picture) a broad band extending from about this location here (indicated) out to the chest wall on the left side. The diaphragm moved fairly well on the right side with no evidence of pulmonary tuberculosis on the right side.

Dr. Weis brought up the question about the apex beat of this patient. We know this patient's heart is on the left side and the apex beat is not on the right side. This broad band of lung tissue extends straight across chest. The collapse above and below has not been seen in our department before.

The length of time between the two pictures was from Sunday and Wednesday—the picture was made on Monday morning after fluoroscopic examination.

Discussion.

Dr. J. B. Guthrie: (Case of Dr. Lyons). It is quite apparent

to me why the diagnosis of tuberculosis was not made at once in this case. The lesions are not apical and there is an area in the left lung at the base and at the apex which is of diminished density. Separating these, there is a band of increased density running across the left lung. This band is evidently the site of pleural adhesion which has protected the lung from complete collapse as a result of the pneumothorax. Rupture of the lung is much more frequent in tubercular subjects than otherwise and it is my opinion that tuberculosis is here the underlying cause.

DR. LEMANN: An interesting point in the history as related by Dr. Lyons is the fact that there were apparently two attacks and I would suggest that perhaps there was a rupture above at one time and another rupture below at the other time.

DR. LYONS: I want to explain that I may have said "apex beat" but I meant point of impulse. I think it was unfortunate that no Radiologist was present at the first fluoroscopy. The lung seemed more compressed at that time and the pleura contained more air. The physical signs and symptoms pointed to more tension three days ago than now. He had pain when he breathed and signs of fullness of which he complained then but not now. Dr. Lemann stated there had undoubtedly been two attacks. In the first attack, pain was not great and signs of shortness of breath, etc., did not compare to second attack—perhaps, because in the first attack, there was but a slight leak which may have been closed by adhesions, while the second rupture was more complete and allowed more air to get in. Valve-like apertures have been described in the pleura. My personal opinion is that it is quite possible this boy is tubercular and rupture probably occurred in the upper part of the left chest, the commonest place for ruptures. One argument against tuberculosis is the absence of fever at any time. The second point is that the majority of tubercular cases develop effusion but he is getting better all the time and has developed none so far. The question of tuberculosis will have to wait until air is absorbed, when the left lung can be examined.

DR. J. D. WEIS: I have a patient I really did not think I was going to show, but he is down here. I want to call your attention to him for the reason that he came to the hospital with an apparent condition which is commonly mistaken for a disease when it is only a symptom. I would like to read you a statement in the history: Complaint, "Bowel trouble," "Heart trouble," and the

story is "patient complains of bowel trouble." Says he has a diarrhea for five or six months; at times his bowels are regular, then they become very loose; a watery stool. At times he is bothered with a great deal of gas. Then his breathing is much embarrassed and he usually goes out in the open air to get relief.

This present attack came about 10 A. M. (about one week ago). He remained in bed because he didn't feel well. (I asked him what he means by "not feeling well" and his idea is typical malaise of anyone sick, weakness and desire to remain quiet.) He says that he has shortness of breath and after he has a great many bowel movements, he runs to the window. Belching gives relief. Patient says he has this trouble for about six years. He has not suffered so much with diarrhea except in the last six months. Past history negative. No operation. No diseases; denies all venereal history.

(Notice pallor and peculiar color!—He has what text-books call "Lemon pallor," and those of you who will see my fingernail in comparison with his will realize what I mean by "pallor").

Physical examination negative except that he has a loud systolic murmur in the pulmonic area. Liver is not palpable. Abdomen negative to pressure of any amount. Not sensitive in spite of all his diarrhea. No edema and no physical signs except pallor.

He is a carpenter. Never worked in lead. Has not a sore mouth. What I want to say is this; that diarrhea or loose bowels is not a *disease*. That is not the only thing I want to say. As to the cardiac side of this case; in other words, paroxysms, difficulty in breathing after he has had several movements of bowels do not indicate anything the matter with the heart! Organic pulmonic systolic murmurs are so rare, we practically disregard them for the present argument. Frankly, I did not know what the condition was until I saw a slide of the blood.

It is obvious that with a diarrheal condition and anemia as great to the eye as his, we could look upon diarrhea as a cause of anemia. Six months of intense diarrhea. His blood shows 1,315,000 red cells. His Wassermann is negative. Hemoglobin 28%. Blood color index 1.07. Now, one of the oldest things that I learned years ago when diseases of the blood were new, was that a high color index always meant an essential anemia. I mean pernicious anemia. Anything below one or fractions were characteristic of secondary anemia. It is a very good thing to hold to

still. It is a mighty good point in deciding. Peculiar lemon color skin which is unquestionably the result of hemolysis. It is because the skin carries the chemical result of hemolysis and the fat of the eye is yellow because it contains hemoglobin. In other words, "hemolysis" is the word. It occurs in secondary anemia, pernicious anemia. We know that in a great many instances, crises of pernicious anemia show temperature and diarrhea. After the diarrheal stage is over, the temperature usually declines, but nucleated red blood cells disappear.

While we were trying to make a diagnosis, we took slides down to the laboratory and almost no nucleated red blood cells were present. Blood shows typical poikilocytosis with an excess of macrocytes. The few nucleated red blood cells present show typical megaloblastic nuclei. After carefully hunting, we found a few of these nucleated reds and the typical vesicular nuclei. To my mind, this is typically pathognomonic of pernicious anemia. I don't believe that you can get as low a red blood count as this with a high hemoglobin and nucleated reds of this type in any other form of anemia and this is proven by the high color index. There are a few myelocytes in the blood which again confirm the essential type of anemia.

The whole picture then from the blood point of view is unquestionably one of pernicious anemia and this case is shown to bring out the point that such symptoms as "diarrhea," "heart trouble" although often treated as a disease are only symptomatic of a profounder organic trouble.

Discussion.

Dr. Lyons: I would like to call attention to the fact that sore mouth is quite common in pernicious anemia. It is not necessary to find nucleated blood cells in pernicious anemia. Macrocytosis is equally or more important and this is especially true of the patients on the upgrade.—If they are first examined during a period of improvement, the diagnosis then has to depend upon the history, the high color index with moderate distortion of red cells and macrocytosis—for one might examine five hundred cells and never come across a nucleated red.

Dr. Sidney K. Simon: In regard to Dr. Weis' interesting case, I would like to ask a question concerning the mouth condition. Last summer, three cases of Tropical Sprue came under my obser-

vation in each of which a severe grade of anemia was present. These cases presented, in addition, the usual clinical picture of sprue, including the sore mouth, the fat diarrhea, and malnutrition. Upon cursory examination, the cases, however, might have been regarded as pernicious anemia. In one, the hemoglobin estimation was as low as 40% and there was a red count of a little over a million.

About two years ago, E. J. Wood of Wilmington, N. C. called attention to the fact that many cases of sprue were entirely overlooked in the South, parading largely under the diagnosis of pernicious anemia. I would not wish to infer that Dr. Weis' case belonged under that category, but the point is worth noting, however, that in every instance where diarrhea is associated with a severe grade of anemia, the diagnosis of sprue should not be overlooked.

Dr. J. D. Weis: I think that such a blood finding as Dr. Simon presents would be unusual. 40% hemoglobin with 1 million reds would certainly never occur in secondary anemia. Just exactly how a Sprue case could produce such a type of anemia, I can't exactly explain. I agree entirely with what Dr. Lyons has said—that the diagnosis of pernicious anemia does not depend at all upon the finding of nucleated blood cells, but when nucleated red blood cells are present, the characteristic megaloblastic type of nucleus, that is of vesicular nucleus—is an essential fact and would prove anemia to be of the essential type. Also, the high color index is extremely important and this depends upon the fact that the predominant red blood cell is much above the normal in size and carries, therefore, more hemoglobin than normal. Rest in bed at once stopped the diarrhea in this case and it may be said in general, rest in bed is a remarkable therapeutic in pernicious anemia.

Dr. Russel E. Stone: Epiphyseal separation lower end of the femur. This happens in youth up to 16 years, sometimes up to 20 years. Ossification takes place after that. There are only about 220 cases reported in literature. Formerly, in compound fractures, they would resect and amputate. This case is one of a boy ten years old. Nothing in past history except multiple, comminuted fracture in same leg ten months ago. He was struck by an automobile and brought into the hospital with leg flexed, distortion of knee-joint. Free of pain, foot everted, except moving of parts. Set under anesthesia by extension and pressure over displaced

fragments; gradually flexion was reduced. (Putting leg up in semi-flexed position gets better results). Picture shows how it looked after reduction. Put up in cast for about twenty days. Semi-lateral view shown. No matter in what direction these patients are struck, there is always displacement of the epiphysis anteriorly and upward due to the attachment of the gastrocnemius muscle which pulls the shaft of the femur posteriorly; hence, the epiphysis moves in the point of least resistance. My opinion is that open operation should never be done. A number of authorities advise open operation. Under anesthesia, pressure over displaced fragment and flexion will always reduce the displacement. If the leg is put up in flexion, the results are usually good. Only two cases I have seen; boy 14 in 1918 of which I could not get picture.

I might add that in reducing fractures, it is well to watch foot for pinching vessel. It has happened but is always corrected by rearranging epiphysis.

DISCUSSION.

DR. J. B. GUTHRIE: I should be glad to learn from Dr. Stone what he considers the reason that the ancient treatment of patellar fracture led to ultimate amputation.

DR. ISIDORE COHN: Someone mentioned the question of operative intervention in Dr. Stone's case. Nothing can be worse than operation on developing joints. Operation means premature ossification of epiphysis; means limitation of growth in the long axis of the bone. Dr. Stone said use position of flexion, and I believe hyperflexion rather than semi-flexion more nearly approximates the shaft and epiphysis and renders the capsule more tense.

ANALYSIS OF HOSPITAL SERVICE.

(Representing all discharges in February, 1921, excepting admissions prior to July 1, 1920.)

DEPARTMENT	Total	Cured	Improv.	Stat.	DIED 48 hrs.	TOTAL Dead.
Ear, Nose and Throat	121	90	24	6	1	1
Eye	10	5	4	1	0	0
Gastro-Intestinal	20	1	16	2	0	1
Gynecological	110	60	36	11	1	3
Medical	52	7	24	16	2	5
Neurological	20	0	11	9	0	0
Obstetrical	40	35	0	5	0	0
Newborn	28	28	0	0	0	0

Orthopedica	7	0	6	1	0	0
Pediatric	13	3	8	1	0	1
Skin	1	1	0	0	0	0
Surgical	160	87	47	19	2	7
Total	582	317	176	71	6	18

DEPARTMENT	INFECTIONS Imstl.	On Adm.	DIAGNOSIS Agree	Disagree	Addl.	Tent. not given	Consultations
Ear, Nose and Throat	..	..	114	4	2	1	4
Eye	..	..	9	0	1	0	0
Gastro-Intestinal	..	..	15	3	1	1	0
Gynecological	1	..	93	6	9	2	2
Medical	..	..	35	12	2	3	10
Neurological	..	..	12	3	1	4	6
Obstetrical	..	..	39	0	1	0	1
Newborn	..	..	28	0	0	0	0
Orthopedica	..	..	7	0	0	0	0
Pediatric	..	..	11	1	1	0	1
Skin	..	..	1	0	0	0	0
Surgical	2	6	141	7	10	2	7
Total	3	6	505	36	28	13	31

Caesarian Section	6
Multiple	0
Breech, Footling, etc.	3
High Forceps	0
Mid-Forceps	1
Low Forceps	5
Stillbirth	1

NEWS AND COMMENT.

STRAWBERRY WINE PERMIT GRANTED. The Strawberry Growers Association of Louisiana was recently granted a permit by the prohibition unit to manufacture wine out of strawberries for non-beverage purposes. No sugar, however, can be added to increase the alcoholic content of the product. The strawberry growers had appealed to the department for permission to set up a winery to take care of their surplus crop, estimated to be worth about five million dollars. Under the Volstead Act it is lawful to establish wineries for the manufacture of products for sacramental or medicinal purposes. It is expected that producers of other berries will apply for permits.

THE EYE SIGHT CONSERVATION COUNCIL. Under the direction of the recently organized Eye Sight Conservation Council a nation-wide "Save Your Sight" campaign is to be conducted. The aim

of the campaign is to acquaint the public with the importance of eye care and to urge the universal eye examinations of school children, workers in industries and clerks in stores and offices. Special literature will be sent to teachers, employers, and those especially interested in the advancement of efficiency and welfare in industry. Charts and posters are to be placed in school rooms and factories, visualizing eye care, depicting the advantages of correcting ocular defects and warning against eye strain and its attending evils. The Eye Sight Conservation Council is a membership organization, the directors and councilors of which are professional men representing various organizations devoted to health welfare, education, science and industrial betterment.

Meeting of the American Hospital Association. Announcement has been made that the annual convention of the American Hospital Association will be held at West Baden Springs Hotel, West Baden, from September 12 to 17. This Association includes both the association of the United States and of Canada and an attendance of 1000 to 1200 is expected, which will include hospital superintendents, trustees and surgeons. A feature of the convention will be an exhibit of hospital equipment and supplies of all modern improvements in surgical apparatus. In connection with the exhibit the Social Service Departments will demonstrate their various lines of work.

Birthday Celebration of Dr. William W. Keen. Dr. William W. Keen, of Philadelphia, on the occasion of his 85th birthday, was given a testimonial dinner which was attended by many representative physicians and surgeons from all over the United States. A life size bronze bust of Dr. Keen was presented to him on behalf of the medical, civic and other organizations of many states. Dr. Keen has served as a medical officer in three wars and last fall presided over the International Congress of Physicians and Surgeons in Paris.

The International Hygiene Congress which was to have been held in May at Geneva, Switzerland, has been abandoned on account of the low value of the currency of many countries and the high value of the Swiss franc and the fact that it was impossible to get Germany, Austria, Hungary, Czechoslovakia, Jugoslavia, Poland, Roumania and Bulgaria to send delegates, while it was also difficult even for France, Italy and Belgium to be represented.

UNITED STATES FORCES IN GERMANY HAVE HIGH DISEASE RATE. The Chief Surgeon in his report for 1920 gives a number of reasons for the greater incidence in venereal disease prevailing in the American forces in Germany, and gives one of the most important factors as the amount of money available for free spending. The private soldier in the American forces has received more pay in marks than some of the highest salaried officers of the German government, this being due to the difference in the exchange value of the American dollar and the German mark. As a result of this comparative wealth the "doughboy" has received unusual attention from prostitutes and the amount of drinking and the number of exposures to venereal diseases have increased.

PHYSICAL EDUCATION TO BE COMPULSORY FOR FRENCH YOUTHS. According to reports by medical boards who have been examining the class of 1921, which will join the colors next month, of more than 300,000 eligibles only 165,000 measured up to the ordinary physical standards. Doctors recommend the passage immediately of a law making physical education compulsory in all French schools.

AMAZON VALLEY TO BE EXPLORED FOR NEW DRUG PLANTS. An expedition having for its object the complete study of medicinal plants in the hope of adding to the laurels of American Pharmacy, will leave New York on May 1 for Northwestern Brazil to explore that great expanse of unknown country, where it is said that some interesting medicines are employed by the natives. The expedition will be led by Dr. H. H. Rusby, now Dean of Columbia University College of Pharmacy. Dr. Rusby is well known as an explorer in botanical fields and is responsible, among other successes, for the discovery of cocillana. It is to be hoped that this expedition, which is purely a pharmaceutical one, will add new drugs of value in the treatment of disease.

ACCIDENTS KILL MANY CHILDREN. The report of the Census Bureau shows that accidents are responsible for a larger portion of deaths under 14 than at any other period of life. The fact that 20,000 children are killed in the United States each year is one to be noted. This mortality is greater than that from measles, scarlet fever, whooping cough or diphtheria. Tuberculosis, which is looked upon as one of the principal causes of death in childhood, cause only 8.5 per cent of deaths between the ages of 5 and 8, while accidents

cause 16.7 percent. In the ages between 10 to 14, tuberculosis caused 14.2 per cent of deaths against 17.7 per cent by accidents. More than 4500 children under 15 were killed by automobile or other vehicular accidents in 1917, according to the 1917 Census Bureau Report and figures compiled by the First Aid Bureau of the American Red Cross.

THE CAUSE OF ELEPHANTIASIS TO BE INVESTIGATED. An expedition, consisting of six members of the London School of Tropical Medicine and led by Dr. Leiper, helminthologist, will soon start for the West Indies to investigate the cause of elephantiasis, with headquarters at Georgetown, British Guiana. The expedition is being organized under the auspices of Sir Patrick Manson and is at the request of the colonial office. It is proposed to segregate patients suffering from elephantiasis in rooms by themselves in which a number of mosquitoes are to be set free. After the patient has been bitten, the mosquitoes will be sorted out and an attempt made to discover which species transmits the disease.

ROCKEFELLER FOUNDATION GIFT. The Rockefeller Foundation has announced the gift of 43,000,000 francs as part payment on a total budget of 100,000,000 francs to be devoted to new buildings and endowment of the Medical School of the University of Brussels. Part of this fund is to go for a nurses' training school in commemoration of Edith Cavell and of Madame Depage.

NEW MEDICAL JOURNAL. *Psychobiology* and *The Journal of Animal Behavior* have been merged under the new name of *The Journal of Comparative Psychology* the first number of which is February, 1921. The *Journal* will be edited by Knight Dunlap and Robert M. Yerkes jointly. *The Behavior Monographs* will be continued, in association with the new Journal.

LAKE CHARLES TO FIGHT MALARIA. The commission council of Lake Charles has voted a sum of money to be used, with an equal amount to be provided, one-half by Louisiana and the other half by the International Health Board, to fight for the elimination of malaria.

THE AMERICAN PROCTOLOGIC SOCIETY will hold its twenty-second annual meeting in Boston, Mass., on June 3, 4 and 6, 1921. The profession is cordially invited to the public sessions.

ST. RITA SURGICAL INFIRMARY. This institution, which main-

tains about 35 beds, has an X-ray laboratory and an ambulance service as well as a diagnostic clinic and a consulting staff. Its doors have been thrown open to the reputable members of the medical profession of New Orleans for surgical and maternity work. Both Dr. Tilly and Dr. Menendez, its founders, are well known among the younger members of the profession, having served in the Charity Hospital during recent years.

THE ISADORE DYER MEDICAL FORUM, a student organization of the School of Medicine of Tulane University, met April 18 in the Hutchinson Memorial Building. This organization has been instituted to encourage research work among the students of the School of Medicine and has been named after the late Dean as a stimulus to good work on account of Dr. Dyer's well known activities in the medical and literary world. Papers by the following students were read: Blood Changes in Influenza, R. C. Scott, Class of 1921; Yellow Fever, Review of work of Noguchi, by Mr. J. Croce, Class of 1921; Post Operative Thrombosis, Embolism and Infraction, by H. Caplowitz, Class of 1922. Professors Matas and Bass addressed the meeting and participated in the discussion. The president of the organization is R. G. McMahon and the secretary, H. Caplowitz. The session was well attended and the entire proceedings were enthusiastically received by the students.

THE SHREVEPORT MEDICAL SOCIETY announces for its meeting on May 3 a "Symposium on Roentgenology." The various papers to be presented will be as follows: X-ray Therapy, by Dr. S. C. Barrow; X-ray Diagnosis, by Dr. C. P. Rutledge, with Dr. C. J. Willis, Sr., to open the discussion.

HODGEN LECTURES. The first of the annual Hodgen Lectures recently established by the Saint Louis Surgical Society, in honor of John Thompson Hodgen, the illustrious St. Louis surgeon, was delivered by Dr. Rudolph Matas, of Tulane University, on the evening of March 26, 1921.

BRITISH DRUG STORES confine their business almost exclusively to drugs, chemicals, sick room supplies and toilet preparations. Candies, ice cream, cigars, and the many other non-drug articles carried by almost every American drug store cannot be obtained in the "chemist shops." Special sales are almost unknown in the British retail drug business. There is no free telephone service and

the British drug stores need no liquor permits because they do not handle liquor. The tall ornamental bottles of colored water, red, green, yellow, familiar displays in American drug stores of yesterday, still have a place in British chemists' shops.

Texas State Medical Association Meeting. The annual meeting of the Texas State Medical Association will be held in Dallas on May 10, 11 and 12. Active work looking to the perfection of plans to care for the entertainment of visitors is well under way. Men of prominence are on the program, local as well as among visitors, and the meeting will be full of interest and practical value, with some educational advancement at least assured. For years the Texas State and the Oklahoma State Medical Associations have held their meetings at conflicting dates, but this year the Oklahoma Association has consented to hold its meeting a week later so that members wishing to take advantage of both meetings can do so without embarrassment or confusion. As the coming meeting of the Texas State Medical Association will be legislative meeting, the profession as a whole will be more interested than ordinarily.

American Medical Editors' Association. The 52nd annual meeting of this association will be held at the Hotel Lenox, Boston, Mass., on Monday and Tuesday, June 6th and 7th, under the Presidency of Dr. H. S. Baketel, Editor of the Medical Times.

A novel feature of the literary program will be introduced this year in the shape of symposia, which will be discussed by various members. The subjects will be: "Group Practice and the Diagnostic Clinic;" "What Should be the Attitude of the Profession Toward Health Centers;" "The Correlation Betwen Editorial, Advertising and Subscription Work."

Every doctor, even remotely interested in medical journalism, will find it to his advantage to attend, and is most cordially invited.

Radium Number of Medical Review of Reviews. The June issue of the *Medical Review of Reviews* will be a special radium number devoted to Mme Curie. The issue will consist exclusively of articles on radium and its uses, written by prominent radiologists in the United States and Canada. Copies will be sent complimentary to every physician interested in the uses of radium and readers of this item who desire that issue may have it by asking the Medical Review of Reviews, 51 East 59th Street, New York.

THE PHYSIATRIC INSTITUTE, of Morristown, New Jersey, has been established for the treatment and investigation of metabolic disorders, especially diabetes, obesity, nephritis and high blood pressure. The purposes of the institute are scientific and philanthropic, and treatment is offered to suitable patients in all degrees of financial circumstances. Some support for the charitable and scientific work has been obtained, but an appeal is made to all persons interested for more funds to place the new institute on a safe basis and aid in the development of a branch of medicine in which the possibility of important therapeutic advance has already been demonstrated.

PERSONALS. Dr. Robert T. Lucas, Tulane 1918, is now located at Shreveport, Louisiana, with offices in the Ward Building, and is limiting his practice to Diseases of Children.

BOOK REVIEWS AND NOTICES

All new publications sent to the JOURNAL *will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the* JOURNAL *to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

The Duodenal Tube And Its Possibilities, by Max Einhorn, M. D. W. B. Saunders Company, Philadelphia, 1920.

In chapter one, Einhorn speaks of the duodenal tube and its congeners. Of one of these I am able to speak, namely, the tube. The metal spiral tube devised by Kuhn in 1898, I used in 1903. I used this tube on several selected cases. At that time I thought, and with the present information before me I am reasonably sure now, that the instrument passed through the pylorus into the duodenum. This instrument has its drawbacks and is awkward to manipulate. The duodenal tubes used at present are free from the objectionable feature of the Kuhn tube.

At present there are in use tubes the tips of which differ somewhat in shape. Then we have the tube with the catheter end first introduced by Einhorn in 1909. I frequently use such a tube, also the one known as the Jutte tube. The more general use of the duodenal tube for diagnostic purposes bids fair to add to our knowledge of the changes incident to pathologic processes in regions now made accessible by its use. Its use should also make possible more rational therapy, but until we have determined more definitely what can be accomplished, the practitioner should be cautious in his statements as to results. Einhorn has

presented us with a timely text well illustrated. Its perusal is well worth while. STORCK.

The Roentgen Diagnosis of Diseases of the Alimentary Canal, by Russell D. Carman, M. D. W. B. Saunders Company, Philadelphia, 1920.

The importance of roentgenologic examination of the digestive tract as a practical aid to gastro-intestinal diagnosis is now recognized by all progressive practitioners. Dr. Carman as head of the Section in Roentgenology, Division of Medicine, Mayo Clinic has been afforded exceptional opportunities of which he has fully taken advantage.

The book reveals the work of the careful, conscientious worker, conservative in all his statements. As an example of this conservatism, we instance chapter XVIII, "Gall-Stones and Diseases of the Gall-Bladder and Liver." A careful reading of this chapter will prove profitable to internist and surgeon alike.

This book is deserving of a large circle of readers.

STORCK.

Surgery. Its Principles and Practice. For Students and Practitioners, by Astley Paton Cooper Ashhurst, A. B., M. D., F. A. C. S. Lea & Febiger, Philadelphia and New York, 1920.

The author, just returned from his military service, has thoroughly revised his first edition, much of which is rewritten and rearranged. His recent experiences in army hospitals is well reflected in the text in his adaptation of this knowledge of civil surgery.

It is impossible in a book of this size to cover thoroughly the ever increasing field of surgery and the author has done well to briefly touch upon such subjects as local and spinal anesthesia, X-ray, radium, etc., as such subjects have now reached the dignity and importance of requiring special text-books. This space has been well conserved and in many regions is well covered and often equals that found in the more elaborate systems of surgery.

The sections on gunshot wounds, infected wounds, Carrel-Dakin treatment, fractures, shock, empyema, hernia, surgery of the pancreas, hydrocephalus and carcinoma of the tongue will be found particularly interesting. In the section on carcinoma of the tongue the author describes his own operation.

The text is unencumbered with bibliographical references but dates are furnished to facilitate a more ready reference to authoritative contributions. The specialities, Eye, Ear, Nose and Throat are naturally omitted while gynecology, orthopedic and genito-urinary surgery are discussed only so far as they come within the province of general surgery.

The sections on kidney and prostatic surgery are particularly good.

Many of the illustrations are original and excellent, drawn from the author's large clinical experience.

The index is well arranged and quite thorough. The edition shows careful and extensive revision and is quite attractive, readable, reliable and up-to-date and is to be recommended to both students and practitioners. ALLEN.

A Text-Book of Histology, by Frederick R. Bailey, A. M., M. D. William Wood & Company, New York, 1920.

This text has long been accepted as one of our standard texts for reference and student work. The author has augmented the chapter on neuro-histology which branch has developed so greatly in recent years. The book is well arranged and is replete but not too voluminous to render the information readily procured. It is also extensively illustrated.

The knowledge of histology has among its most important objects to form a basis for the appreciation of pathological changes. For this reason it has always appeared to the reviewer that more stress could be placed on minute normal factors in cells and tissues and the relative proportions of framework tissues and parenchyma. This could be carried on throughout the text or in chapter form. The reason for such a suggestion is that while the average student may possess a general knowledge of the names of structures, the more detailed factors upon which they are to base their pathological studies, such as cell degeneration, cells of inflammation, interstitial tissue increase, etc. are not appreciated by them. This phase of the discussion is intended for texts of histology in general as well as the present text. W. H. HARRIS.

Chemical Pathology, by H. Gideon Wells, Ph. D., M. D. W. B. Saunders Company, Philadelphia and London, 1920.

The original edition of this text represented a much needed and important connecting link between the various pathological processes of the human body and the physiological chemistry associated therewith. Its subsequent editions have been augmented and elaborated. It enters not only into the chemistry of the phenomena of disease but also the consideration of the physics where indicated. The interesting and intricate chemical and physical factors concerned in the remarkable occurrences found in immunological reactions are also freely discussed.

The extensive bibliography of this work together with the extensive amount of information in its own text, renders it of great value to those seeking such knowledge or investigating problems bearing on such subjects.

While the scope of this book is beyond the medical student, it is certainly of the greatest value to the teacher and investigator.

W. H. HARRIS.

Compend of Diseases of the Skin, by Jay Frank Schamberg, A. B., M. D. P. Blakiston Sons & Co., Philadelphia.

Dr. Schamberg's Compend of Diseases of the Skin, 6th edition, is well illustrated, contains many useful formulas and is in every respect a very useful book for its size. MENAGE.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for March, 1921.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	1	2	3
Intermittent Fever (Malarial Cachexia)	----	1	1
Smallpox	1	3	4
Measles	3	1	4
Scarlet Fever	----	----	----
Whooping Cough	----	1	1
Diphtheria and Croup	1	1	2
Influenza	1	4	5
Cholera Nostras	----	----	----
Pyemia and Septicemia	----	1	1
Tuberculosis	31	24	55
Cancer	29	7	36
Rheumatism and Gout	2	1	3
Diabetes	4	1	5
Alcoholism	----	----	----
Encephalitis and Meningitis	4	2	6
Locomotor Ataxia	----	----	----
Congestion, Hemorrhage and Softening of Brain	18	8	26
Paralysis	4	3	7
Convulsions of Infancy	----	3	3
Other Diseases of Infancy	8	7	15
Tetanus	----	----	----
Other Nervous Diseases	5	3	8
Heart Diseases	57	23	80
Bronchitis	2	1	3
Pneumonia and Broncho-Pneumonia	28	32	60
Other Respiratory Diseases	2	----	2
Ulcer of Stomach	1	1	2
Other Diseases of the Stomach	1	1	2
Diarrhea, Dysentery and Enteritis	13	6	19
Hernia, Intestinal Obstruction	2	1	3
Cirrhosis of Liver	3	5	8
Other Diseases of the Liver	4	----	4
Simple Peritonitis	1	----	1
Appendicitis	2	1	3
Bright's Disease	11	7	18
Other Genito-Urinary Diseases	11	11	22
Puerperal Diseases	9	7	16
Senile Debility	1	----	1
Suicide	6	1	7
Injuries	28	18	46
All Other Causes	28	12	40
TOTAL	322	200	522

Still-born Children—White, 17; colored, 13; total, 30.

Population of City (estimated)—White, 290,000; colored, 110,000; total, 400,000.

Death rate per 1000 per annum for Month—White, 13.32; colored, 21.82; total, 15.66. Non-residents excluded, 13.44.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmospheric pressure 30.11

Mean temperature ..... 71.

Total precipitation ..... 5.59 inches

Prevailing direction of wind, south.